Independent Schools Queensland
choice & diversity

Financing School Infrastructure

A Discussion Paper for Independent Schools Queensland prepared by Michael E. Drew, PhD and Adam N. Walk, PhD

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St John's Anglican College

Our Schools – Our Future

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Contents

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About Our Schools – Our Future

Our Schools – Our Future is an Independent Schools Queensland research based initiative designed to promote informed public policy debate about schooling. Through commissioned research, Our Schools – Our Future explores trends and issues in key areas which determine the nature and performance of our school education systems. Whilst the initiative has a particular focus on the contribution of independent schools to our education provision and outcomes, it examines a range of issues and trends relevant to the development and implementation of effective public policy for schooling. All research reports are available to members on the Independent Schools Queensland website at www.isq.qld.edu.au via ISQhub.

Sunshine Coast Grammar School

Foreword

Independent Schools Queensland (ISQ) has for some years raised concerns about the timely provision of adequate future school infrastructure in Queensland to accommodate the projected growth of school-aged children. In connection with these concerns, ISQ commissioned a research paper, *Independent Schools and Infrastructure in Queensland – A Plea for Fairness* (Prasser: 2010), that identified a range of challenges and increasing constraints on the provision of school infrastructure, particularly for the independent school sector.

These challenges included, amongst others, the high level of capital required to establish a new school, the scarcity and prohibitive cost of new school sites and the cost of, and access to, development finance. Today, these challenges remain – despite welcome government initiatives such as the Queensland Schools Planning Commission that sought to address issues related to infrastructure planning and restrictive regulatory settings.

Innovative approaches to capital investment that seek to channel increasing levels of private capital into supporting various social enterprises and infrastructure have recently emerged world-wide.

Dr Michael Drew and Dr Adam Walk, in *Financing School Infrastructure,* introduce potential options for sourcing private capital to support the development of future school infrastructure. They consider the potential and limitations of each approach, noting that no individual approach is likely to be singularly sufficient to provide a solution to future school infrastructure financing needs.

Key issues that would need to be addressed are highlighted and a set of potential actions are suggested for ISQ to consider taking forward.

I commend this thought-provoking paper, *Financing School Infrastructure,* in the interests of promoting informed public policy debate about schooling in Australia.

David Robertson
Executive Director
Independent Schools Queensland

Independent Schools Queensland

St Hilda's School

Executive Summary

This discussion paper grapples with a central question: Is there a viable model which would allow the independent schools sector to finance the development of new schools without the government being relied upon as the sole financier? We consider this question in the context of stretched public finances and a growing demand for independent school enrolments among parents. We consider a range of extant, emerging and novel financing models and find that none is a silver bullet to the problems of financing schools. Instead we suggest a diversified approach to school financing where multiple options are advanced in concert. Furthermore, we argue that it is critical to build a constituency among stakeholders for investing in social infrastructure (of which schools are one asset type), taking full advantage of its perceived social benefits.

For a diversified approach to be successful we argue that attention be paid to a number of important over-arching issues, specifically: building a constituency; leveraging the role of government; addressing regulatory issues; and ensuring taxation settings do not interfere with the development of financing options.

We find that ISQ has the potential to play a critical role in the advancement of new (and current) models of school financing as advocate, facilitator, catalyst, and capability builder.

Background

Queensland has been – and continues to be – a growth state in terms of population. Queensland has among the highest population growth rates of Australian states and territories and, in recent times, has recorded consistent net interstate migration (NIM) gains.[1,2] Population growth drives the need for key social services and infrastructure, including schools. Providing public services in Queensland is a particular challenge given the combined effects of the state's geographical size and its relatively high regional and remote population.[3]

From the perspective of state governments, the two main expenditure items are health and education. [4] For example, in fiscal 2014/15 the Queensland Government plans to spend around $13.6 billion on health and $11.8 billion on education, representing 27.6% and 23.5% of total general government expenditures respectively (The State of Queensland (Queensland Treasury and Trade), 2014a). Based on these headline numbers alone, it would appear that the future education needs of Queenslanders are well in hand.

While the aforementioned budget commitments to education seem large in magnitude much of it is recurrent operational expenditure. That is, a relatively small proportion of this sum is available for capital expenditure on building schools.

The Queensland Schools Planning Commission (QSPC) has identified continued strong growth of the school-aged population, projecting enrolments through to 2021 and 2031. This work, drawing on official statistical and demographic sources, indicates up to 120 new schools may be required over the period to 2031, in addition to expansion of existing schools (Queensland Schools Planning Commission, 2014). [5] The Queensland Government is therefore obliged to find ways to plan for, and fund, the development of these new schools in areas of demand for enrolment capacity.

The build cost of a state primary school is approximately $30 million, and for a state secondary school is approximately $50 million, implying a capital requirement of $4-5 billion between now and 2031. In total, the cost of this new social infrastructure appears prohibitively high and the current accumulated debt of the State of Queensland – and the associated interest – suggests continued fiscal restraint for years to come in order to achieve the "fiscal repair" highlighted by the Queensland Commission of Audit Final Report (2013).[6]

At the same time as this growing demand for school infrastructure, there remains a significant and growing demand for enrolments in non-government schools (Knott, 2014). As at August 2010, 34% of all primary and secondary students attended non-government schools and this proportion is expected to rise in coming years (Australian Bureau of Statistics, 2013).[7] The proportion of students enrolled in non-government schools is higher in more-expensive secondary schools (around 40%) than in primary schools (around 30%), pointing to a need to develop funding models that will allow non-government schools to establish to meet society's needs, and take the pressure off government (Australian Bureau of Statistics, 2013).

[1] Queensland's annual population growth rate as at 30 June 2014 stood at 1.5%, behind only Western Australia (2.2%) and Victoria (1.9%) and equal with that of New South Wales (Australian Bureau of Statistics, 2014b).

[2] Over the past decade, Queensland has recorded an annual NIM gain from the rest of the country. The last decade's average annual gain for Queensland was 21,100 people. New South Wales and South Australia have consistently recorded NIM losses over the past decade, with average annual NIM of -22,300 and -3,000 respectively. Western Australia had the highest percentage gain for NIM in 2011-2012, at 0.47% (Australian Bureau of Statistics, 2014a).

[3] Queensland has a larger proportion (17.7%) than the national average (11.3%) of people who live in outer regional, remote, and very remote areas (Australian Bureau of Statistics, 2014c).

[4] In this context, education refers to primary and secondary education as the tertiary sector is largely the province of the Commonwealth.

[5] The State Government has projected that the population of school-aged children will grow by about 150,000 children per decade for the next two decades, from a level of 734,386 in 2011 to around 1,037,266 in 2031 (The State of Queensland (Queensland Treasury), 2013).

[6] The estimated interest on debt in fiscal 2014/15 is around $4 billion (The State of Queensland (Queensland Treasury and Trade), 2014b).

[7] Of this 34%, 20% attended Catholic schools and 14% attended independent schools (Australian Bureau of Statistics, 2013).

Coomera Anglican College

Motivation

The state of the education sector and public finances motivates this discussion paper's core question: Is there a viable model which would allow the independent schools sector to finance the development of new schools without the government being relied upon as the sole financier?

This paper sets out to:

- Identify new ways of supporting the independent sector's contribution to the delivery of future school infrastructure in Queensland; and
- In particular, explore innovative approaches to financing school infrastructure projects that may leverage the sector's particular abilities and attributes.

Independent Schools Queensland (ISQ) has commissioned this research to:

- Demonstrate its commitment to actionable research; and
- Contribute to furthering one of society's most important priorities – investing in the future of education.

Purpose

In particular, this discussion paper has the following purposes:

- Identify and assess the current approaches to funding school infrastructure projects;
- Identify a range of potential innovative school infrastructure funding approaches;
- Undertake preliminary assessments of each approach in terms of its pros and cons, level of applicability to the context of schools, and the feasibility/practicality of progressing each to a concrete outcome; and
- Recommend and outline further research and development of specific selected approaches assessed as attractive.

What this discussion paper does not set out to do is to provide a detailed and comprehensive review of the entire body of literature. Such a work would extend many pages beyond this paper's length. This paper is designed to catalyse thinking and prompt action to solve a real problem for the independent schools sector on whose behalf ISQ acts.

Financing Schools – Present and Future

A. Extant Approaches to Delivery

Budget appropriations

The classical approach to providing public infrastructure is through government spending from consolidated revenue.[8] It is argued that some infrastructure – e.g. networks of local roads – is uneconomic for private interests to invest in because it is difficult or impossible to charge the public for the benefits obtained from such infrastructure. Furthermore, it is accepted that some infrastructure involves significant positive externalities and is therefore best funded by the government on behalf of the beneficiaries of the infrastructure, the public. In this way, the diffuse benefits of infrastructure are funded by a broad tax base.

In the United States, for example, it was estimated that "local taxes pay for 80% of new school construction" (Terman and Behrman, 1997, p. 14). In Australia, governments generally fund public schools from the tax base and contribute a far smaller proportion to the construction of independent schools. In New South Wales, for example, it is estimated that the government's contribution to "capital works spending in independent schools" has averaged around 20 per cent (of total spending) over the long term (Knott, 2014).

Since the Thatcher era in the United Kingdom, there has been a fairly durable trend towards privatisation, based on the belief that governments should not necessarily be in the business of providing a wide range of goods and services. While this trend arguably began as an ideological push by centre-right governments, privatisation, including the private provision of infrastructure, has to a large extent continued under governments of all sorts of ideological stripes. It is thought that the main reason for this continued trend is that there are few votes to be had by increasing taxes no matter the benefits that may result.

In Australia, there remains a general aversion to governments funding and delivering major infrastructure projects, with a few exceptions (e.g. NBN, defence materiel acquisitions). Demographic forces – e.g. the aging of the so-called "baby boomer" generation and modest fertility rates, which together conspire to cause rising dependency ratios[9] – mean that there is likely to be upward pressure on taxation just to pay for entitlements let alone fund significant additional infrastructure projects.

In summary, it is expected that governments will look to private interests to continue to deliver infrastructure. While this expectation might remain, ultimately the government of the day will be "the provider of last resort." Given this, governments have an incentive to ensure that infrastructure is provided. This reality should also give government an incentive to cooperate with private providers to establish viable financing options. Some of these potential options are discussed below.

Outside of south-east Queensland, public school infrastructure continues to be provided and funded through regular government budget appropriations. It is expected that this will continue as regional and remote population centres present more "demand risk" than do cities on the eastern seaboard of Australia.

[8] The Commonwealth of Australia has a longstanding complicating factor when it comes to governments spending from revenue raised through taxation. The Constitution assigns to the States the responsibility for education and health. These two responsibilities are amongst the most significant expenditure items facing any level of government in Australia. At the same time, the Commonwealth collects the vast majority of taxes paid. This inconsistency between who spends (the States) and who collects the taxes (the Commonwealth) has come to be known as the "vertical fiscal imbalance."

[9] The dependency ratio (also, age dependency ratio) is the ratio of dependents – people younger than 15 or older than 64 – to the working-age population – those ages 15-64 (The World Bank, 2015). A rising dependency ratio suggests pressure on the tax base as the non-working population grows faster than the working population (who pay the tax). The World Bank (2015) estimates that the dependency ratios for Australia for the years 2011, 2012 and 2013 were 48, 49 and 50 respectively.

Public Private Partnerships (PPP)

A relatively new approach to delivering social infrastructure has been the pursuit of public-private partnerships (PPP), utilising the private sector to fund, develop and maintain a number of schools. The terms of these arrangements are generally long term (e.g. 30 years) after which the asset(s) revert to the State.

It is important at this juncture to make a distinction between the construction and operation of an infrastructure project and the financing of it. Government projects are routinely constructed by private firms following normal tender processes. Such a method for the physical delivery of infrastructure is not particularly novel. What is novel is the *combination* of the financing, construction and operation of infrastructure by private interests. This paper is particularly interested in the financing piece of these arrangements. By identifying a mechanism for financing new schools, the independent school sector can respond to the demand for school places as they arise, not according to the fiscal realities of the government of the day.

In Queensland, perhaps the best example of delivering education infrastructure using the Queensland's PPP framework is Aspire Schools ("Aspire"). Aspire is the project vehicle that delivered the *South East Queensland Schools PPP Project*, a key initiative of the Queensland Government's Department of Education, Training and Employment to provide public education facilities in the rapidly growing south-east Queensland corridor (Aspire Schools, 2013). To deliver the project, Aspire engaged a construction firm (Broad Constructions) to build the seven schools in stages over a four year period, and another firm (Leighton Contractors Services Division) to provide facilities management services during the schools' operating phase (The State of Queensland (Department of Education, Training and Employment), 2014).

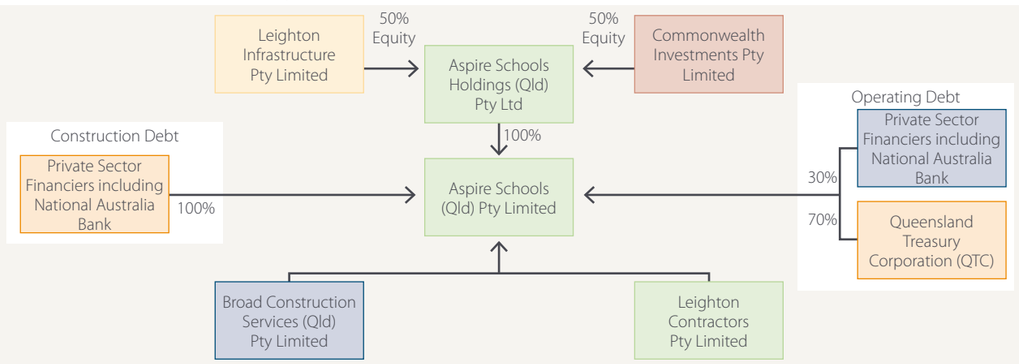
Under this framework, Aspire Schools undertook the financing, design, construction and maintenance of the schools for approximately 30 years while all core school and education functions are provided by the Queensland Department of Education, Training and Employment. Since January 1st, 2014 all schools have been in full operation, maintained by Leighton Contractors (Aspire Schools, 2013).

Let us now turn to the financing of the Aspire project. AMP Capital and Morrison & Co are the shareholders in Aspire Schools (the project vehicle), and funds managed by each of these firms own equity interests in the South East Queensland Schools PPP as follows:

- *AMP Capital Community Infrastructure Fund* ("CommIF") – It has owned a "49.99 per cent equity interest in the South East Queensland Schools PPP project [since] August 2013" (AMP Capital Investors Limited, 2013); and
- *Australia Social Infrastructure Partners* ("ASIP") *platform* – The ASIP platform owns 49.0% of the equity South East Queensland Schools PPP (HRL Morrison & Co Limited, 2013). Since late 2013, Infratil has owned 55% of the units in each of the two vehicles underlying the ASIP platform (Infratil, 2013).

Figure 1 summarises the structure of the South East Queensland Schools PPP pictorially.

Figure 1: The structure of the South East Queensland Schools PPP [10]



Source: The State of Queensland (Department of Education and Training) (2009), p. 3

[10] Since the time this chart was produced, the interests of Leighton Infrastructure Investment Pty Limited (magenta box) and Commonwealth Investments Pty Limited (red box) in Aspire Schools Holdings (Qld) Limited have been acquired by Morrison & Co. (December 2012) and AMP Capital (August 2013) respectively.

There are several noteworthy points in relation to the financing of the South East Queensland Schools PPP which apply generally to social infrastructure projects:

- *Construction pipeline* – In the case of the ASIP platform, a construction company is using an arrangement with a financial firm (in this case, Morrison & Co) as a way of accessing the future PPP pipeline. This is important for two reason: (a) it signals that these firms see PPPs as a viable model for the future; and (b) it provides parties interested in pursuing PPPs somewhere to start in identifying potential partners; and
- *Investment pipeline* – Financial firms appear to be using strategic alliances with contractors – e.g. Morrison & Co with Leighton Contractors – as a means of gaining access to PPP deals for their funds (HRL Morrison & Co Limited, 2013). Such firms benefit from the funds via management fees and potentially carried interest.

The reader should also note that the above funds (CommIF and ASIP) contain assets other than the South East Queensland Schools PPP project. For example, CommIF also contains the following interests:

- the Partnerships Victoria in Schools Project, which it acquired from the Royal Bank of Scotland; and
- the South Australian Schools PPP project.

Financial firms actively seek to diversify funds across a number of assets in order to reduce asset-specific risk and to access different economic exposures. For further information about how CommIF is presented to institutional investors please refer to *Exhibit 1*.

Exhibit 1 – The value proposition of social infrastructure for institutional investors

It is possible to understand the investment case for social infrastructure by examining how social infrastructure funds – like CommIF – are presented to institutional investors.

Institutional investors generally build portfolios to achieve their investment objectives – however defined – based on Markowitz's Modern Portfolio Theory (1952). According to this theory, the investor combines a series of asset classes (e.g. equities, bonds, cash) based on their return/risk characteristics and the correlations between those assets to form a portfolio. Research has suggested that a significant proportion of total portfolio outcomes – perhaps 90% or more – can be explained by this asset allocation decision (Brinson, Hood and Beebower, 1986; Ibbotson and Kaplan, 2000; Statman, 2001). A superior portfolio is defined as one that maximises return for a given level of risk, or minimises risk for a given level of return. ^ A common way of improving the return/ risk profile of a portfolio is by adding an asset class with a less than perfect correlation with the other assets in the portfolio. The explosion in new asset classes over the last decade or so testifies to the desire of institutional investors to improve their portfolios through diversification. †

One asset class that has been of particular interest to institutional investors is infrastructure. The reason for its popularity is its relatively reliable yield, its long term investment horizon, and its inflation-linkage (which is a reasonable match for how superannuation fund liabilities grow). ‡ Or, as Courtois (2013, p. 16) states:

"Infrastructure assets generally exhibit long lives and stable and predictable cash flows, provide current income, and have low volatility and low correlation with other asset classes."

Social infrastructure (schools, hospitals, prisons), while not unheard of, is far less common in institutional portfolios than economic infrastructure (toll roads, airports, ports), in part because the former may attract negative publicity connected with the political process and the delivery of essential public services.

^ Markowitz's MPT effectively proved for the first time that the "don't put all your eggs in one basket" aphorism is mathematically true. For his formal treatment of the benefits of portfolio diversification, Harry Markowitz earned a share in the 1990 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, which is commonly referred to as "the Nobel Prize in Economics."

† Investors acknowledge – especially in the wake of the global financial crisis – that the benefits of diversification tend to evaporate in poor financial market conditions. Notwithstanding its known limitations, diversification remains the cornerstone of investment practice. Research continues to focus on better ways of achieving diversification. See, for example, Bianchi et al. (2012) for recent work on risk factor diversification.

‡ "Infrastructure", the asset class, is by no means a homogenous set of assets. Returns can range from bond-like to equity-like in nature depending on the particular asset exposure. The benefits of infrastructure outlined here are typically observed in utility-style assets (like, say, a toll road, which is quasi-monopolistic and has regulated cash flows), than in more growth-style assets (like, say, an energy generation asset which may be more vulnerable to competition and the threat of alternatives).

Exhibit 1 *Continued*

AMP Capital states that their Community Infrastructure Fund (CommIF),

"… provides investors with the opportunity for stable, long term returns through investment in an unlisted portfolio of high quality PPP-style social infrastructure assets in Australia and New Zealand. The fund focuses on social infrastructure PPP assets within education, health, justice, defence, community housing, recreational facilities, transport and other social infrastructure sectors where income from the assets is primarily derived from long term, CPI linked concession arrangements with government entities. The fund is currently seeking to raise new equity to enable it to invest in further exciting opportunities given the consolidation of the social infrastructure market and the availability of assets in their operating phase" (AMP Capital Investors Limited, 2015).

AMP Capital asserts that the main ways CommIF meets investors' needs are:

Defensive assets – *"stable, long-term income generated by exposure to defensive assets that derive revenue from concession contracts with government or government-backed entities"*; and

Income – *"An existing portfolio of established Australian and New Zealand social infrastructure assets which are generating attractive immediate income yields and a pipeline of investment opportunities in Australia and New Zealand"* (AMP Capital Investors Limited, 2015).

The risks of CommIF are disclosed as *"… liquidity, borrowing and debt refinancing, deal flow, termination and handback of concessions, infrastructure assets, limited diversification, level of investment, reliance on projections, international investments and tax"* (AMP Capital Investors Limited, 2015).

Finance theory shows that return and risk are positively related in expectation (Treynor, 1961, 1962; Sharpe, 1964; Lintner, 1965; Mossin, 1966). The risks of investing in CommIF might therefore be described as significant because AMP Capital estimates a rather high expected total return of "10% p.a. before costs and taxes over the long term", primarily from income (AMP Capital Investors Limited, 2015).

Other than leading to questions about the nature of the risks of CommIF, an expected return of 10% per annum causes us to ponder the economics of the South East Queensland Schools PPP which, it must be admitted, is but one of the assets in the fund. It is these economics that will be of interest to ISQ members if new school financing were to be facilitated by PPPs in the Aspire Schools mould.

A further consideration regarding investing in social infrastructure that isn't considered in finance theory is the related environmental, social and governance (ESG) profile of an asset. Because these are being considered by institutional investors more and more, we discuss ESG factors in *Exhibit 2*.

Research has sought to understand the key ingredients, or critical success factors (CSFs), for infrastructure PPPs in a number of economies. [11] Hardcastle et al. (2005), for example, investigate CSFs for the United Kingdom whereas Chan et al. (2010) provide a Chinese perspective. In their paper, Chan et al. (2010) review a total of seventeen (17) papers from the literature and show that the total number of PPP CSFs range between one (El-Gohary et al., 2006) and nine (Corbett and Smith, 2006). They summarise their findings in a table which gives the citation frequencies of fifteen (15) different CSFs across the seventeen (17) papers (Chan et al., 2010, p. 486). The top six (6) CSFs in descending order of citation frequency were (with number of citations out of 17 in brackets) (Chan et al., 2010):

- Project economic viability (8);
- Competitive and transparent procurement process (7);
- Strong private consortium (7);
- Strong government support (6);
- Available financial market (5); and
- Good relationships among partners (5).

The first of these CSFs is of particular interest and is worth exploring particularly when one considers the target return disclosed for CommIF (see *Exhibit 1*). For a PPP to suit all parties there must be a viable economic model. For example, if the vehicle(s) that owns the PPP project – e.g. CommIF's and ASIP's interests in the South East Queensland Schools PPP project – offers high returns to potential investors (as we argue CommIF does) it follows that one or both of the following holds: (a) the charge paid by the school to use the asset is high; and/or (b) there is some degree of leverage used in financing the construction of the assets.

[11] Critical success factors (CSFs) are defined as "those few key areas of activity in which favorable results are absolutely necessary for a manager to reach his/her goals" (Hardcastle et al. 2005).

Both of these issues represent risks to the viability of the project and hence need to be managed carefully. On the other hand, if the returns offered to investors are not high enough for the risk of the project then the project will not attract investors. In short, the economic model must be viable for all parties.

A key point to note about extant PPPs is that the financing piece has been structured in a number of different ways. As such the PPP model should probably be thought of as a delivery model rather than a method for financing. Notwithstanding this, using Aspire Schools as an example, it is fair to conclude that the PPP framework offers a fairly flexible means of delivering infrastructure projects. However, the PPP model need not be the only approach to delivering infrastructure needs.

Tri-partite schooling system

For non-state schools, Queensland has a long-standing tri-partite schooling system with all three sectors – State, independent and Catholic – expanding annually to meet the demands of population growth and parental choice of schooling. For decades the independent school sector has grown strongly in terms of both enrolments, and the number of new and expanding schools.

Despite recent slowing in the rate of growth (i.e. since the onset of the so-called global financial crisis, or GFC, in 2008), the sector is expected to continue growing in line with population increases and sustained patterns of parental choice of schooling. The growth in the independent sector has required substantial financial resources from a number of sources to fund the new infrastructure.

Exhibit 2 – Institutional investor focus on environment, social and governance (ESG) factors in investment

In classical finance theory, portfolios are constructed based on the returns and risks of assets or asset classes, and the correlations between the assets or asset classes (see *Exhibit 1*). In recent times however there has emerged a trend whereby institutional investors allocate funds to achieve what are seen as desirable societal goals. This movement has been described in a number of ways – e.g. "ethical investing", "socially-responsible investing" – however the descriptor du jour is investing by taking account of "environmental, social and governance (ESG)" factors.[~]

While this movement continues to grow in importance, a number of interrelated factors have caused fiduciaries to pause. Firstly, whether or not ESG investing is accretive to portfolios remains controversial. Advocates make the point that investing in a "socially-responsible" way will necessarily lead to better outcomes because the underlying investment is, perhaps, better managed or because risks are being avoided. Whatever the argument, advocates tend to make a fairly qualitative case. The sceptics, on the other hand, cite research that illustrates an empirical reality that doesn't necessarily support the affirmative case. This controversy about the investment case, along with their fiduciary duty to the ultimate beneficiary of their investment program, causes (usually risk-averse, lay) trustees to tread carefully, if at all.

The movement is strongest in Europe, and particularly in Scandinavia (Bianchi, Drew and Walk, 2010a; 2010b). In the US and Australia, significant examples of ESG investing exist but they tend to result from the personalities of key individuals (e.g. Chairpersons, CEOs) and/or the nature of the fund. Notwithstanding the status of the movement in Australia, a trend toward more ESG investing is evident and increasingly funds are taking more public positions on issues like climate change and the governance of listed companies. Social infrastructure is an asset class well placed to benefit from this movement. The asset class characteristics are attractive to investment managers, and the underlying ESG rationale for the investment is easily understood by most if not all stakeholders.

For example, on 16 May 2014, it was reported that Local Government Super (LGS) was to invest in AMP Capital's CommIF, "a decision influenced by the social and environmental qualities that are part of the fund, said Bill Hartnett, LGS's head of sustainability" (Alembakis, 2014).[°] This story is interesting for two reasons. Firstly, it shows that superannuation funds are already willing to make allocations to social infrastructure for ESG-related reasons (among others). This hints at latent demand for the asset class in a rapidly growing sector. And, secondly, funds are appointing specialist resources – with titles like "head of sustainability" – whose roles are directed at pursuing ESG-style investments. This gives those that might originate future deals a constituency to appeal to.

ISQ, when deciding how best to secure funding for its members, should keep in mind the benefits of an ESG-related value proposition to potential investors in social infrastructure.

[~] In these days of political correctness, it is thought that the ESG label has become the popular choice in industry because it is less morally normative. After all, the definitions of "ethical" and "socially-responsible" do vary between individuals based on factors like faith (or absence thereof), political beliefs, etc. Faith-based investing, for example, is particularly common among Muslims, and is known as "Islamic finance."

[°] It is noteworthy that Hartnett "also cited CommIF's transparency and the strength of its assets as part of the reason why LGS made the allocation" (Alembakis, 2014). This highlights that ESG factors will rarely be enough to get a deal completed. The assets must be high quality and the needs of institutional investors relating to issues like transparency must be satisfied in addition to their being some underlying ESG rationale.

To date, the sources of funding have been:

- *Revenue* – Sourced from parents and communities (i.e. operating surpluses and building donations/ foundations), and Commonwealth and Queensland Governments (i.e. capital grants).
- *Loans* – Sourced from financial institutions (mostly "vanilla" loans from commercial banks) and the Queensland Government (e.g. government-guaranteed low interest loans for grammar schools as statutory bodies). For example, a recent research paper commissioned by ISQ showed that "independent schools have, on average, consistently invested more into property, plant and equipment than their annual operating surplus – the difference being funded by debt. The average debt per student increased … to about $8,000 per student in 2012. The average school of 500 students has a debt of about $4 million" (Somerset Education, 2014, p. 2).

Thus, the capacity of schools to raise and service debt is dependent on secure, steady revenues from parents and governments. Also, government capital assistance is critical for the viability of many, but not all, infrastructure projects. Both parental contributions and government assistance need to be sustainable to ensure future infrastructure provision can be delivered to meet demand. In this way, we see more evidence that funding schools is not as simple as focussing on one particular solution, be it government, bank, or capital market in nature.

Rather, funding schools is in practice a matter of coordinating multiple levers. Some organisations with infrastructure needs utilise a range of financing options, taking a sort of portfolio approach. This approach allows the organisation to diversify sources of funds, to access a range of different markets and reduce the risk of being exposed to one particular lender or type of financing. For example, the Australian National University (ANU), based in Canberra, has "a funding mix of: Commonwealth and one-off grants, ACT government grants, bond issue, bank loans and Build Own Operate Transfer schemes with private operators" (FIIG Securities Limited, 2013a).[12]

Extant capital market solutions

Ultimately, all capital market solutions to financing schools (or any other initiative for that matter) sit somewhere on the so-called "credit spectrum", which ranges from high quality debt at one end to pure equity at the other. We represent this spectrum schematically in *Figure 2*.

As *Figure 2* suggests, the key defining characteristic of a given set of cash flows is its security. From the perspective of the investor (i.e. the provider of funds), with greater security comes lower *expected* return (e.g. a government bond). Conversely, with less security, an investor would have a higher *expected* return in mind (e.g. an equity investor). [13] From the perspective of financing schools, the provider of funds will seek the best possible return for a given level of risk. If the trade-off on offer appears unattractive it may be difficult for the user of funds to obtain financing. The user of funds is thus incentivised to offer a high return, if only to secure funding.

On the other hand, it goes without saying that a user of funds seeks the lowest possible cost of funds. But in order to achieve a very low cost of funds the provider of funds must have a high degree of confidence that the promised stream of cash flows (e.g. interest) is secure. For example, the main reason why governments borrow at such low interest rates is because the interest payments are seen as highly secure (largely because governments have taxing powers) notwithstanding their sometimes long term (e.g. 30 years). A party wishing to finance a school on the other hand might rely on patronage from parents (in a competitive market for education) and on government funding to fulfil interest payments. For such a project, the question is: how does the potential user of funds present the given project to appeal to the market? Does one seek government support to ensure the lowest possible cost of funds, or does one market the project as a way of accessing relatively secure yield, but with some potential upside?

In a competitive capital market, where the forces of demand and supply determine a "fair" (expected) return for a given risk, it is how the project is presented to the market that will determine its success. Having said that, the project must have a viable financial model – using the prevailing cost of funds – or the project should not proceed. [14]

Figure 2: The credit spectrum simplified

[12] See Apendix 1 for a research note generously provided by FIIG Securities Limited (2013a).

[13] We italicise "expected" because the actual return from an investment is uncertain. For example, equity has a high *expected* return however during the GFC it had a very low *actual* return. Finance theory largely deals with expected returns; empirical finance deals with actual returns.

[14] Brisbane's notorious tunnel infrastructure (e.g. Clem7 and AirportlinkM7) provides a salient reminder of the necessity of a viable financial model.

As the above discussion suggests, the range of potential capital market solutions is virtually limitless, and continues to evolve with financial innovation. What follows is a small selection of extant capital market solutions to give the reader a sense of what's possible:

- In the United States, a number of states have issued "statewide bonds" to finance school construction (Terman and Behrman, 1997, p. 14);
- *Australian National University* (ANU) – As mentioned earlier ANU uses a mix of grants, bond issues and bank loans to finance its activities. From a capital market perspective, in 2004, ANU issued a highly-rated (S&P AA+), long term (25 year term at issue) CPI indexed bond to fund capital expenditure. [15] For further detail please refer to *Appendix 1* for a research note generously provided by FIIG Securities Limited (2013a); and
- *JEM (NSW Schools II) Pty Ltd* (JEM) – JEM is a financing vehicle established by the Axiom Education (Axiom) consortium which was contracted to finance, design, construct, maintain and manage 11 schools located in NSW. The financing for the project consists of three tranches of long-term CPI indexed annuity bonds (IAB), the last of which matures on 2035. A particularly attractive aspect of this issue is that the "revenue stream received by Axiom from the Aaa-rated (Moody's) NSW [government] carries low risk of volatility and is matched with timing of debt payments" (FIIG Securities Limited, 2013b, p. 2). For further detail please refer to *Appendix 2* for a research note also generously provided by FIIG Securities Limited (2013b).

It is important to note that market conditions have a large impact on whether a given deal is completed. For example, as has been mentioned earlier in this paper, the global financial crisis has impacted the independent schools sector with growth rates moderating somewhat. The GFC has also had a profound effect on investor perceptions in the capital markets. Coffey (2010, p. 10), a commercial advisory firm active in the infrastructure sector, identify the following as features valued by the market post-GFC:

- "Transparent Structuring;
- Higher Yields – correct pricing of risk;
- Long term, stable investments;
- Reasonable, single layer fee structure, without being locked in long term;
- Reasonable understanding of patronage;
- Certainty of suppliers and/ or customers, preferably locked in with long term contracts;
- Knowledgeable operators with successful track records; and
- In general – now require a lower risk profile for each risk category."

Many of these features are quite predictable responses to a severe risk event like the GFC, which has led investors and lenders to re-assess the return-for-risk trade-off before them. Coffey (2010, p. 24) notes that the "private sector [is] no longer prepared to accept significant patronage risk," but is comfortable accepting "standard" risks in construction, operations and maintenance. These learnings are well worth remembering when pursuing solutions for financing independent schools.

While projects of the sort envisaged by ISQ have been completed, it is possible that existing infrastructure financing models may not be sufficient to meet the rising demand for, and costs of, future independent school infrastructure. We now turn to a range of novel or emerging financing options which may assist with future school financing.

[15] Inflation-linked bonds are particularly attractive to superannuation funds (especially defined benefit plans) because they arguably represent their zero-risk asset. This is a key point in pursuing capital market solutions: for an issue to be successful it should satisfy the demands of investors as well as provide an attractive financing solution for borrowers.

The Glennie School

B. Potential Approaches to Delivery

The approaches discussed below have potential in assisting with the financing of school infrastructure. While all are relatively rarely observed, some are more novel than others.

Real estate/infrastructure fund

There is a great demand among institutional investors for infrastructure and real estate exposure principally because of their combination of defensive (bond-like yield) and growth (capital appreciation) characteristics (see Exhibit 1 for further discussion on infrastructure as an asset class). [16] Schools, and the real estate they are located on, may be viewed as satisfying the definitions of both the real estate and infrastructure asset classes. Each receives a rent or usage charge for the use of the asset (be it a school or, say, a shopping centre) and the value of the asset changes based on market values. Perhaps the only distinction between the two definitions is the nature of the cash flows received from the users of the infrastructure (here, independent schools) versus the users of our hypothetical shopping centre. In the case of infrastructure, the cash flows are likely to be government – regulated or – sourced to some degree, whereas rents in the shopping centre will be largely unregulated cash flows (arguably) making them more risky. [17]

Irrespective of such definitional issues, the investment cases for both infrastructure and real estate are well established among institutional investors. In Australia, which one commentator described as "the cradle of private financing of infrastructure" (along with Canada and the United Kingdom), investors have been investing in infrastructure for more than a decade (Courtois, 2013, p. 17). Current investment in infrastructure among Australian entities with more than four members totals around $47.4 billion out of $1,219 trillion of retirement savings (Australian Prudential Regulation Authority, 2014). This equates to a portfolio allocation of around 4% of system assets, of which three-quarters are domiciled in Australia (Australian Prudential Regulation Authority, 2014). Of this 3% devoted to Australian infrastructure, roughly one-third is listed with the remainder being unlisted, usually invested across a number of investment funds (Australian Prudential Regulation Authority, 2014).

The unlisted fund is the sort of investment structure that might provide a solution to the school funding identified by ISQ. Typically, an unlisted fund – legally, a trust – is launched and managed by an investment manager in return for management fees and, in many cases, performance fees.[18] In fact, the AMP Capital Community Infrastructure Fund ("CommIF") and Australia Social Infrastructure Partners ("ASIP") platform discussed earlier – that each own interests in the South East Queensland Schools PPP – are examples of such investment vehicles.

There are a number of factors that lead us to question whether such funds will provide a decisive solution to the matter of independent school financing (unless they are dealt with):

- *Aggregation* – In order to launch a fund, an investment manager has to seed it with a number of different assets. Because of investor requirements, such funds must usually demonstrate some degree of diversification (e.g. by geography, asset age, sector, asset type). As the fund evolves further assets may be acquired, developed or disposed of depending on the mandate given to the investment manager. Furthermore, funds must usually be relatively large in size to attract the full spectrum of potential investors. The question arises: How does a manager find sufficient assets to seed a fund, and then build sufficient scale?
- *Mismatch between the needs of investors and borrowers* – ISQ's main interest in commissioning this paper has been to understand whether there are ways of securing financing for new independent schools. Unfortunately, however, the appetite for so-called "greenfield" assets is relative limited amongst institutional investors because they bring with them significant construction/ development risk. [19,20] A model that has been observed is where the infrastructure project is developed by a developer or construction company using bank finance, after which it is sold or transferred to a fund. While this might be a useful model, it is not an example of investment funds financing greenfield infrastructure.
- *Lack of an obvious intermediary* – Impact Investing (2014) identifies a number of strengths and challenges for developing impact investing in Australia. Among the challenges identified under the heading "intermediaries" are: a "lack of scale, depth, diversity and reach"; and a "lack of specialist advice" (Impact Investing Limited, 2014, p. 15). Along these lines, one potential way of organising demand for funds is to establish an intermediary that can present itself to potential investors and lenders. Such an intermediary might assist those in need of financing to develop "quality investable propositions" and make up for the deficit in specialist advice among existing intermediaries (Impact Investing Limited, 2014, p. 15). This might represent an area of strategic opportunity for ISQ.
- *Joint ventures/consortia* – The very largest asset owners in the world (e.g. Australian, Canadian, Dutch pension funds, and certain sovereign wealth funds) are increasingly uniting to make investments where scale is important and, sometimes, where impact is sought. Such consortia have enormous access to funds and are increasingly willing to act, however these transactions can be complex and time-consuming to complete.

CommIF and ASIP demonstrate that infrastructure funds can be a source of funds for infrastructure investment. It seems that more widespread use of such structures depends on the above issues being addressed.

Government intermediation

A common thread through the foregoing discussion has been the perceived lack of an intermediary able to match those that require funds (borrowers; in this case, schools) with those who have surplus funds (lenders and/or investors). Financial institutions (especially banks) already fulfil this role to some extent but such organisations tend to be highly sensitive to the economic environment and general interest rate and credit conditions. While enrolments – especially at private schools – may react to the economic environment, the demand for school places tends to be more consistent through time than banks' appetite for lending. From the perspective of schools, what is preferred is a reliable provider of affordable finance.

[16] Drew, Walk and West (2014) discuss real estate in the context retirement investing. Many of the points they make about real estate can be applied equally to infrastructure.

[17] We can see here signs of the sometimes arbitrary nature of asset class definitions.

[18] Fee structures for investment managers are an area of significant debate. Typically, management fees are intended to cover the costs of managing the fund, and performance fees are (as the name suggests) designed to reward performance above a performance threshold. In theory, performance fees are designed to align incentives.

[19] A greenfield asset is one that begins as a green field i.e. it must be built before it is operated. When institutional investors think of "infrastructure" they generally think of long-term relatively smooth cash flows. Greenfield assets tends to be more equity-like in terms of returns because of the associated development/ construction risk.

[20] With some regularity, politicians publicly opine that "superannuation funds should help build important community infrastructure" (or words to that effect). These politicians see a retirement savings pool of $1.2 trillion, or around 103% of GDP (Organisation for Economic Co-operation and Development, 2014, p. 11), and believe that it is all available for infrastructure investment. As shown earlier, at an allocation of around 3%, there is currently about $36 billion invested by superannuation funds in Australian infrastructure. Let us assume that the aggregate investment in infrastructure increased to, say, 10% which is around the highest total allocation to infrastructure among individual funds (as opposed to aggregates). At this sort of allocation around $120 billion would be invested in Australian infrastructure. Asset owners also tend to apply concentration limits on particular investment types for risk management purposes. Assuming a (very reasonable) 10% concentration limit on greenfield infrastructure, and based on this rough arithmetic, we could expect up to around $8.4 billion in new greenfield investment ($120 billion, minus existing investments of $36 billion = $84 billion of new infrastructure investment, times concentration limit of 10% = $8.4 billion). We believe it is fairly evident that Australia's need for greenfield investment far exceeds this number.


Coral Coast Christian School

The question arises: Is there a type of specialised financial institution that might have a dual mission of ensuring schools' access to funds, as well having a mandate to make an economic return? A potential model might be broadly described as an "infrastructure bank." Such a bank might be broadly defined (e.g. to include all types of infrastructure) or narrowly so (e.g. confined to, say, social infrastructure).

For example, the United States Congress has been considering the creation of a so-called "National Infrastructure Reinvestment Bank" since it was first proposed by United States Senators Christopher Dodd and Chuck Hagel in 2007. The original bill – the National Infrastructure Bank Act of 2007 - was to establish,

"an independent National Infrastructure Bank to: (1) designate qualified transit, public housing, water, highway, bridge, or road infrastructure projects for loans, loan guarantees, and other financial assistance; and (2) issue general purpose and project-based infrastructure bonds exempt from state and local taxation" (GovTrack, 2007).

The Bill was revised in the form of "H.R.402 - National Infrastructure Development Bank Act of 2011" which has as its purpose,

"To facilitate efficient investments and financing of infrastructure projects and new job creation through the establishment of a National Infrastructure Development Bank, and for other purposes" (OpenCongress, 2015).

The Bill envisages such a bank as a wholly-owned government corporation. It authorises the bank's board to: "(1) issue public benefit bonds and provide financing to infrastructure projects … and (2) borrow on the global capital market and lend to entities and commercial banks for funding infrastructure projects" (OpenCongress, 2015). Furthermore, it requires the bank to "create conforming standards for infrastructure finance securities" and "exempts all notes, debentures, bonds or other such obligations issued by the Bank, and the interest on or credits with respect to such bonds or other obligations, from state or local government taxation" (OpenCongress, 2015). It thus has a mandate beyond what might be expected of a private sector counterpart.

Miller, Costa and Cooper (2012, p. 4), in a report for the Center for American Progress, identify what it describes as "the four greatest failings of our current infrastructure investment system" and then go on to illustrate their detrimental effect on the US economy. These four great failings are (Miller et al., 2012, p. 4):

- Failure to provide sufficient public funds;
- Failure to attract private investment;
- Failure to coordinate investments; and
- Failure to allocate funds efficiently.

At first blush, these failures appear similar to those facing Australia in delivering key infrastructure. Miller et al. (2012) argue that a government-owned infrastructure bank is capable of addressing these failings by acting as the "the missing link needed to connect private capital to the kinds of infrastructure megaprojects most needed to boost economic activity and competitiveness [emphasis added]" (Miller et al., 2012, p. 24). The idea that there might be a "missing link" between the various stakeholders certainly comes through in the Impact Investing Australia Ltd. (2014) report which looks at the Australian context. ISQ may have a role to play filling this gap.

Imperfect examples of similar organisations exist within Queensland. For example, QIC Limited, is a government-owned investment firm that essentially has two missions: (1) to manage investments on behalf of the State of Queensland; and, (2) deliver a return to the shareholder (the Government) by offering its products and services to non-government fee-paying clients.[21] Depending on how it was to be constituted, a government-owned infrastructure bank could have as its core objective to finance economically viable infrastructure projects and, perhaps as a secondary objective, to yield a modest profit from its core banking activities.

A number of further questions present themselves:

- *Ownership* – Would such an institution be best owned by a government (e.g. QIC Limited)? Or could it be constituted as a not-for-profit and operate for the benefit of members (in the same way as a credit union or industry superannuation fund is. See the next section entitled *Non-government intermediation*)?
- *Funding* – How would the institution be funded? Deposits? Capital markets (e.g. long term bonds)? Or both?
- *Economics* – Would the economics work i.e. would the cost of funds for borrowers be low enough to be economically viable but high enough for the bank to make an economic return?
- *Products* – What kind of products would be offered to investors? At-call deposits? Interest-bearing deposits (a potential market here would be SMSFs)?
- *Bureaucracy* – Is it possible to establish such an institution without introducing a sprawling bureaucracy?
- *Regulation* – If such an institution were to take deposits, APRA regulation as an authorised deposit-taking institution (ADI) would likely be necessary.

Ultimately, whether such an institution might emerge depends largely on the existence of some entity that both accepts the need for such an institution, and is willing to act to address the need. If the institution were to be government-owned, the government of the day would need to play an instrumental part in its establishment. The experience of the United States Government suggests that such a process is likely to be arduous and political.

Non-government intermediation

As an alternative to a government-owned infrastructure bank, there exists an option whereby a group of like-minded entities might form a (non-government) not-for-profit banking institution. Such an institution might operate in a similar way to, say, a credit union. Under such a model, a number of members (e.g. schools, or representative bodies like ISQ) would unite to establish a credit union style institution with the objective of providing members cost-effective financial services. Products might include taking deposits, extending loans (including for school construction), and providing short term financing (e.g. overdrafts).

A key advantage of such a model is that the member (equivalent to a shareholder) and customer are one and the same, so there is not the tension that exists in a traditional banking model where the shareholder and the customer are notionally different, with different interests (the customer wants affordable financial services; the shareholder wants high profits, and dividends). One potential drawback with such a non-government option is the potential mismatch between the infrastructure needs of the community and the loan book of this banking institution. After a period of time, the management of such a private sector infrastructure bank might begin to behave more like that of traditional banks where profitability and risk management move up the list of priorities and the original intentions of the founders of the organisation – e.g. providing affordable finance to build schools – might move down.

Further examples of such institutions are the so-called "development funds" operated by a number of Christian denominations. These institutions offer what can only be described as banking services: they take deposits from entities with surplus funds and on-lend these funds to those that require funds, all from within a particular local community (e.g. the Catholic Archdiocese of Brisbane). Development funds fulfil the same intermediation function, however the parties to this intermediation have a common mission. Such a model might be an option for Queensland independent schools.

Many of the challenges of such a model are similar to that of the government-owned version discussed earlier.

[21] QIC Limited – formerly Queensland Investment Corporation – was established by an Act of Parliament in 1991 (*Queensland Investment Corporation Act 1991*) to "serve [the Queensland Government's] long term investment responsibilities" (QIC Limited, 2015).

Securitisation

In the lead up to the GFC, securitisation allowed banks to extend credit to a wide range of borrowers. Once loans were originated, banks transferred the loans into a special purpose vehicle (SPV) which, in legal terms, is a trust (*Figure 3*, step 1). The SPV would then issue securities of different seniority collateralised by the mortgages: also known as, asset – or mortgage – backed securities (ABS or MBS) (*Figure 3*, step 2). So, while individual borrowers thought they were repaying their loans to their bank in reality their loan repayments were being passed through to the legal owners of their mortgage, the holders of MBSs. This structure is shown diagrammatically in *Figure 3*.

Securitisation allows banks to tap the "secondary capital market … in order to find additional financing sources for infrastructure projects" (Subacchi et al., 2014). Investors, on the hand, benefit because it increases the availability of credit while decreasing its cost, and allows them to gain direct risk exposure to diversified sectors of the economy (Blommestein et al., 2011).

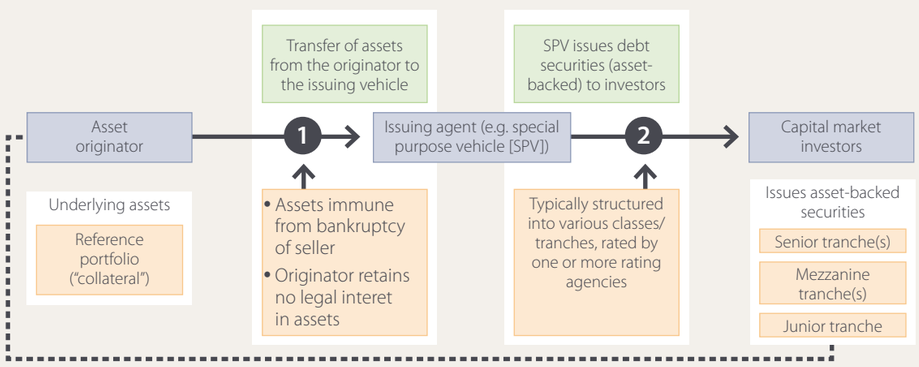
There are a number of open questions regarding securitisation, particularly in the wake of the GFC:

- *Originator* – Who would originate these loans? Unless one of the abovementioned infrastructure banks is established, originations will likely be dominated by existing commercial banks.
- *Credit ratings* – Credit ratings are important to the success of ABS/MBS. Given the public interest in education, is it possible that governments might assist with credit enhancement?
- *Investor appetite* – What is the appetite for ABS/MBS backed by loans to construct schools? Widespread securitisation of social infrastructure loans is unlikely unless originators see demand for it among investors.
- *Economics* – As with other financing options, would the economics work from the perspective of the user and the provider of the finance?
- *Reputation* – In some respects, securitisation is still trying to escape the negative coverage received during the GFC. Is it a viable model for social infrastructure?

While securitisation may figure as part of the solution to school financing, its use is largely beyond the control of schools or organisations like ISQ for the following reasons:

- For it to be employed, securitisation must be viewed as a viable business practice. As mentioned earlier, securitisation has been critiqued (in many cases unfairly) in the wake of the GFC;
- Banks must be willing to use secondary markets for large commercial loans. If banks wish to retain commercial loans on their balance sheet then loans used to finance schools may never be securitised; and
- There must be an appetite among investors for ABS/MBS backed by loans used to finance social infrastructure (and, in this case, schools).

Figure 3: A basic securitisation structure



Source: fimarkets (2015)

Other potential solutions

Other financing options – e.g. social impact bonds (*see Figure 4*), social benefit bonds – while potentially relevant tend to be used to finance smaller scale initiatives aimed at correcting particular social problems (e.g. disadvantage among particular segments of society).

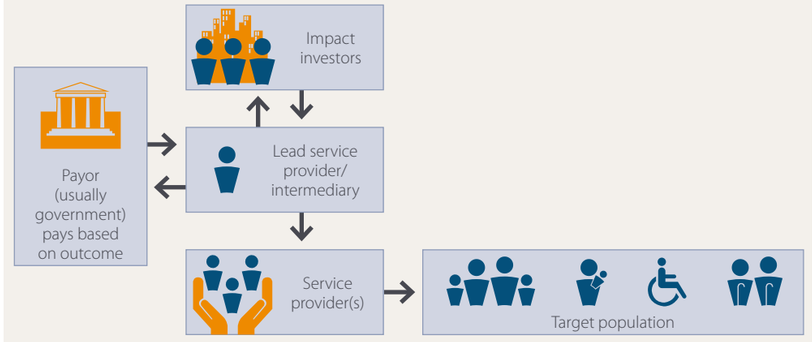
As *Figure 4* demonstrates, social impact bonds are a financial innovation that links social and financial performance (i.e. the payor's payment is contingent on an outcome). Financial innovation continues apace so it is prudent to maintain a watching brief for further potential solutions.

In summary, we have considered the following potential approaches to financing schools:

- Real estate/infrastructure fund;
- Government intermediation;
- Non-government intermediation;
- Securitisation; and
- At a high level, a small number of other emerging solutions.

Having now considered a range of financing options, we turn to a number of overarching issues that need to be addressed whatever option(s) is (are) eventually pursued.

Figure 4: A basic social impact bond structure



Source: Impact Investing Australia Ltd (2014) (Adapted from Australian Government, Department of Employment, Introduction to Social Impact Bonds, 2013)

Key Common Issues

As will be apparent to the reader by now, there isn't one single financing model that will easily solve the challenge of independent school financing. Instead, a successful response will likely involve being prepared for, and taking, a number of financing opportunities concurrently. While potentially more challenging to deliver, such a portfolio approach should result in better outcomes as the sources and types of financing will be better diversified.

There are a number of factors which are critically important to delivering school financing. It is the view of the authors that any one of these done poorly will make it much more difficult to achieve ISQ's underlying objective of allowing independent schools to be financed without being held captive to the exigencies of public finances.

Building a constituency

It is critical to continue to build constituencies among groups who have an interest in social infrastructure in general, and schools in particular. These groups might include:

- *Government* – See the next section on the role of government;
- *Catholic schools* – Being non-government schools, Catholic schools should have similar interests to the independent schools represented by ISQ including the need to build schools in areas of demand. A coordinated approach to dealing with government by all non-government schools would almost certainly lead to better outcomes than an uncoordinated approach;
- *Counterparts interstate* – While some differences no doubt exist, the underlying needs of the independent schools sector must be similar Australia-wide. An approach to government on important issues is likely to be more successful when the narrative is clear and coordinated;

Living Faith Primary School

- *Potential institutional investors* – There are a number of peak bodies and industry associations that represent both asset owners (superannuation funds, sovereign wealth funds, insurance companies) and the investment managers that invest on their behalf. Given the social benefits of investing in schools, particular attention should be focussed on those investors known for taking ESG issues into consideration when making investment decisions;
- *Individual investors* – With the self-managed superannuation fund sector being the single largest sector of the Australian superannuation landscape, there is a myriad of small investors looking for attractive investment opportunities. Many of these investors are likely to see the case for investing in education infrastructure especially if it can be delivered as an attractive product offering (e.g. a relatively high yielding fixed income security); and
- *Media* – Keeping in contact with key media outlets – both the mainstream media, and the financial press – allows those interested in the financing of independent schools a voice when the public debate turns to matters of funding public services.

Given that ISQ is a representative body with a strong communication focus it might wish to take the lead in continuing to build the constituencies outlined above.

Role of government

Because of the role of government in funding education – both recurrent operational expenditure and capital expenditure – making the case to government for viable financing options is imperative. Governments are as aware as any party of the pressures of funding education. This is especially so because governments have a "universal service obligation" in relation to education (in addition to being its main provider). That is, unless some other party (i.e. independent and Catholic schools) offers education, the government will be expected to. As such governments have (or rather should have) an incentive to develop financing options that non-government parties can employ, particularly options that don't rely heavily on the tax base.

While these facts suggest that one should be optimistic about government's involvement, there are really two main challenges:

- *Agreeing and presenting a unified approach to government* – The ideal way to make headway would be to present to government an agreed approach for facilitating the private financing of school infrastructure. Different interests (e.g. independent versus Catholic) will make it more difficult to agree a unified approach, arguably to the detriment of all parties; and
- *Getting agreement between levels of government on particular options* – Given the different interests and politics it would appear sensible to try and reach some sort of agreement between the levels of government on the way forward.

In the Queensland context, Queensland Treasury Corporation (QTC) represents a good place to start in engaging with government because of its key role in financing the government's debt. QTC also has an interface with the capital markets and so is aware of the possibilities of using the capital markets to finance social infrastructure.

Furthermore, coordinating bodies – like the Council of Australian Governments (COAG) – should be considered as entities that might assist in making a case for the preferred approach(es) to financing schools.

ISQ, in conjunction with other similar organisations like the Queensland Catholic Education Commission, might also have an important part to play in representing the non-government schools sector to government.

Regulatory issues

Many of the above potential financing solutions involve financial regulation of some sort, whether that be the law surrounding the public offering of securities, or the regulation of financial institutions. When the preferred course of action has been agreed, it is suggested that a consideration be given to the potential regulatory hurdles along with an associated action plan.

Taxation

It is possible to promote long term infrastructure investment by removing existing tax disincentives, and/or by providing appropriate tax incentives. Given the technical nature of taxation questions, it would be appropriate to engage specialist expertise to address the taxation issues relating to infrastructure investment.

Caloundra City Private School

Conclusions

As with most complex problems, there isn't (in our view) one single "silver bullet" solution. Instead what appears necessary is the advancement of a number of measures in unison:

- *Building constituencies* – especially among the key stakeholder groups outlined above;
- *Diversified approach* – If governments have taught us one thing in solving society's problems (e.g. climate change) it is this: beware of picking winners. We believe that a combination of financing solutions will be necessary to provide timely responses to financing needs with sufficient flexibility; and
- *Environmental, Social and Corporate Governance (ESG) focus* – As we note earlier, superannuation funds are growing rapidly, and the management of funds is becoming increasingly professional and confident. Funds are beginning to take stands on controversial topics like climate change and director remuneration at listed companies. As mentioned earlier (*Exhibit 2*) funds have already begun to invest in school infrastructure because of the putative social benefits. Furthermore, some superannuation funds have memberships that seem purpose built for making an ESG investment case. Take for example, UniSuper – which represents university teachers – or NGS Super/Catholic Super – which have a keen awareness of the non-government school sector. Strategically targeting these sorts of funds on ESG grounds may assist in generating interest in financing school infrastructure.

Table 1 summarises a number of priority areas for consideration by ISQ and the sector, along with a range of potential actions:

Table 1: Summary of Priority Areas of Consideration

FUNCTION	POTENTIAL ACTIONS
Acting as an advocate – Actively seeking to influence stakeholders in order to further one or more of the financing options outlined herein	• Host a roundtable to garner stakeholder insights, and develop a strategy for implementation • Engage with other similar organisations (e.g. QCEC) to generate consensus about how to proceed
Acting as a facilitator – Potentially establishing a capability that allows ISQ to take the lead on advising entities seeking to raise funds, and facilitating financing deals. This would allow ISQ to continue to build its profile as a "trusted adviser" to its membership base	• Building a database of transactions/case studies across the financing spectrum to overcome barriers to entry (e.g. lack of track record and data) and build enterprise value • Build networks with potential investors/ lenders or those organisations that represent these parties (e.g. ASFA, FSC, AIST)
Acting as a catalyst – Taking the lead in developing interest among stakeholders in order to progress one or more of the above opportunities	• Undertake a research piece designed to make the investment case for social infrastructure (across the debt/equity spectrum) as a distinct asset category • Such a study could form the basis of a publicity campaign to institutional investors and further evidence ISQ's profile as a thought leader
Acting as capability builder – Facilitating the development of a greater degree of financial literacy so that those requiring finance are capable of developing "a spectrum of quality investable propositions" (Impact Investing Australia Ltd, 2014)	• Sponsoring and convening financial acumen training for school boards as a necessary pre-condition to pursuing new approaches to financing schools • Establish an ongoing benchmarking study to capture operating and ESG performance in order to better evidence the economics of independent schools. This big data approach will provide timely analytics critical for institutional investors

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Appendix 1

Research note on the Australian National University (ANU) generously provided by FIIG Securities Limited (2013a).

The Australian National University (ANU)

Executive summary

- The Australian National University (ANU), established in 1946 and located in Canberra, is one of the most prestigious universities in Australia ranked 37 in 2012/13 Times Higher Education World Rankings
- Operating as non-for-profit entity, ANU is a research led university established under Commonwealth legislation and accountable to the Commonwealth government through the Commonwealth Department of Education, Employment and Workplace Relations
- The majority of ANUs revenue originates from the Commonwealth Government of Australia
- University's revenue consists of Australian Government Financial Assistance: Higher Education Funding Act (HEFA), Higher Education Support Act (HESA), Higher Education Contribution Scheme (HECS), Higher Education Loan Programmes (HELP), Australian Research Council grants, ACT Government Financial Assistance, fees (including full fee paying international students), consultancy and contract research, investment income, and sales of goods and services
- ANU plays an important part in relation to government education policies, operates under the Commonwealth legislation and enjoys a strong link with the Australian government
- Overall gearing of the university remains very low at ~15%
- ANU maintains a very high credit rating at AA+ (stable) by S&P; thus higher than Australian major banks
- The CPI indexed bond is a senior debt instrument with an amortising loan structure which removes refinance risk for investors
- Whilst the bonds are not explicitly guaranteed by the Commonwealth government, but due to strong links between the university and the government counterparty, we view it as extremely likely that the government would provide support in times of distress
- Under certain conditions the bondholders can require ANU to redeem all of the notes before the maturity date which is positive for bondholders

Credit ratings	
S&P	AA+(stable)

Financials (FY11)	
Revenue	$1,025m
OW Commonwealth funding	$647m
OW fees and charges	$161m
Shareholder's equity	$1,737m
Debt funding	
IAB (October 2029)	$109m
Total debt	$315m

Background

The Australian National University (ANU) was established in 1946 as a research university. Located in Canberra, it is the only Australian university established under the Commonwealth legislation. ANU is one of the most prestigious universities in Australia with a strong domestic and international reputation (ranked 37 in 2012/13 Times Higher Education World Rankings).

ANU is a majorly research focused university, as a result, ANU has a range of research related facilities and regularly commits to the modernisation of these major resources One of the biggest capital projects of recent years was the John Curtin School of Medical Research (approximately $150m value) building redevelopment (third and final stage completed in August 2012). The university seeks to maintain its international standing by attracting and retaining talented academics.

ANU operates as a non-for-profit-entity, and the majority of revenue is derived from the Commonwealth government (AAA/Stable) operating and research grants and other specific capital project funding. These revenues coming from a AAA rated counterparty make up the bulk of the university's income, and in 2011 totalled $647m or 64% of total (see Table 1 below). The proportion of Commonwealth funding has been constant over the years, adding further to the credit strength of the institution.

In '000	2011	2010	2009	2008
Total government financial assisstance	$647,250	$672,585	$543,664	$492,672
Total revenue	$1,009,822	$1,000,570	$875,981	$820,517
	64%	67%	62%	60%

Source: FIIG Securities, ANU reports

Table 1

Other revenue flows from full fee-paying international students (9.4% of total revenue). The revenue grew 12% in FY11. While this revenue has growth potential given the strong academic reputation, they are also susceptible to exchange rate fluctuations. However we note that the ANU is far less reliant on international student fees than the majority of its Australian university peers.

ANU, being the only university established under the Commonwealth law with the government thus having an oversight through the Commonwealth Department of Education, Employment and Workplace Relations, enjoys a very strong link with the Commonwealth government. Coupled with the role ANU plays in relation to establishing government education policies, there is strong incentive the government would provide emergency support to the institution in times of unlikely distress. However we note that the financial obligations (debt) are not openly guaranteed by the Commonwealth government.

Debt

To fund the building program, the university has been using a funding mix of: Commonwealth and one-off grants, ACT government grants, bond issue, bank loans and Build Own Operate Transfer schemes with private operators. The drive for innovation and re-development projects in the past few years, saw an increase in debt and gearing for the university (Table 2). However, this level of gearing is considered to be extremely low.

Appendix 2

Research note on the JEM (NSW Schools II) Pty Ltd generously provided by FIIG Securities Limited (2013b).

In '000	2011	2010	2009	2008
Debt	$314,792	$184,830	$113,965	$116,557
Equity	$1,737,433	$1,853,247	$1,715,417	$1,486,088
Gearing	15%	9%	6%	7%

Source: FIIG Securities, ANU reports

The CPI indexed bond

Outside government grants, ANU's capital projects funded internally or via debt. In 2004, ANU has issued $115m in form CPI indexed bond, maturing on 7 October 2029, to fund growing capital expenditure (including re-development of the John Curtin School of Medical Research and renovation of the Research School of Physical Sciences and Engineering).

The bond is a senior unsecured obligation of ANU. The bond provides a stream of interest and principal payments over its life and is an amortising loan structure, thus removing any refinance risk.

The bond enjoys a negative pledge condition attached, which protects the bondholders from being displaced in the capital structure further reducing the risk of the bond.

The bond also has an early redemption (put) attached, that is under certain conditions (i.e. university ceasing to be a statutory body under the ANU Act or ceasing to carry out all or part of the functions under the ANU Act), the bondholders can require the issuer to redeem all of the bonds prior to the maturity date.

The issuer carries a AA+ rating from S&P.

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JEM (NSW Schools II) Pty Ltd

Executive summary

- JEM (NSW Schools II) Pty Ltd is a financing vehicle established by the Axiom Education (Axiom) consortium which was contracted to finance, design, construct, maintain manage 11 schools located in NSW
- The Axiom consortium was contracted by the NSW Government under private public partnership (PPP), and consisted of ABN Amro, International Public Partnerships Limited, St Hilliers Pty Limited, Hansen Yuncken Pty Limited and Spotless Group Limited
- The construction and design phase of the project is now complete leaving Axiom with the upkeep and maintenance of the site for a period extending to 31 December 2035
- At the end of the contract, Axiom will hand over the school facilities to the NSW state Government
- As part of the contract, Axiom receives monthly service fee payments from the NSW Government, which are indexed against the CPI. The payments are contingent upon achievement of KPIs related to the upkeep and management of schools' facilities
- Axiom subcontracts Spotless Services Australia as a facilities manager to perform the bulk of contract duties
- The financing for the project consists of three tranches of CPI indexed annuity bonds (IAB) which are senior secured obligations of the issuer. All three bonds rank equally
- As an added comfort to bondholders, the revenue stream for the project comes from the NSW state (Aaa rated by Moody's) and carries low risk of volatility and is matched with timing of debt payments
- The senior bonds are an amortising loan structure which removes refinance risk for investors
- The NSW Schools IABs represent a low risk annuity-like cash flow for investors supported by a revenue stream backed by the NSW government

Credit rating	
Moody's	A1 (Stable)

Debt funding	
IAB November 2035	$80.00m
IAB February 2031	$34.19m
IAB August 2035	$23.00m

The project

JEM (NSW Schools II) Pty Ltd is a financing vehicle established by Axiom Education NSW no 2 Pty Ltd (project company). Axiom is a consortium which was contracted to finance, design and construct 11 schools located in Sydney, Wollongong, Shell Harbour and the Central Coast in NSW, and upon completion to provide maintenance and related services for these school buildings, fittings and grounds.

The Axiom consortium was contracted by the NSW Government (through the NSW Department of Education and Communities - DEC) under private public partnership (PPP), and consisted of ABN Amro, International Public Partnerships Limited, St Hilliers Pty Limited and Hansen Yuncken Pty Limited as construction contractors and Spotless Group Limited as a facilities manager.

With the construction and design phase now complete (the schools were opened between 2007 and 2010), the project is now in the low risk operation phase. This phase entails the upkeep and maintenance of the site for a period extending to 31 December 2035, at which time the project company will hand over the school facilities to the NSW state Government.

The operation phase requires Axiom to provide management, cleaning, maintenance, repair, security, safety, utility and related services for the schools' buildings, fittings, equipment and grounds through to the end of the contract in 2035. These services are of low complexity and as such the project risk has decreased significantly since the completion of construction.

Axiom has subcontracted Spotless P&F Limited (wholly owned by Spotless Services Australia Limited) as a facilities manager, for the purpose of performing the bulk of its services obligation. Spotless is an experienced provider of facilities maintenance services, and has a track record of experience in other PPP projects over the past several years (Southbank TAFE, Defence HQJOC and Suncorp and Dairy Farmers stadiums to name the few). Spotless' PPP portfolio continues to expand with addition of Sunshine Coast Hospital and new Sydney's convention, exhibition and entertainment precinct (SICEEP) in 2012, taking it to a total of 13 PPP projects. Should Spotless fail to provide required services, or cease to exist, facilities management remains a competitive sector with a number of capable providers in the market, under this situation Axiom can re-tender for the provision of the services.

Under this PPP agreement, Axiom provides these services in return for performance-based monthly payments by the DEC during the operational phase of each of the schools. These payments are indexed quarterly against the CPI. It is the main revenue stream of Axiom, which is sufficient to cover operating expenses, service debt and fund a subordinated return to equity. Provisions exist for the State of NSW to abate the payment to Axiom, if the latter fails to satisfy specified standards of the contract (KPI's). However, Spotless' expertise in facility management provides a degree of comfort that fee abetment can be avoided.

Some key costs to the project (e.g. provision of facilities management, gas and electricity and insurance costs) are also subject to benchmarking on a three or five yearly basis. While this practice is yet to be tested, it reduces pricing risk in the long-term as the State should adjust its payments to Axiom to reflect any newly benchmarked cost structure.

Debt

JEM (NSW Schools II) Pty Ltd as a financing vehicle has issued $137m of CPI indexed annuity bonds (IABs) in three tranches, with the last IAB maturing in November 2035, prior to the expiration of the service contract. The debt is senior secured and under the financing agreement, each of the bondholders has a first priority of repayment of all outstanding amounts, with the exception of certain State priority amounts (any amounts Axiom owes to the State).

By their nature the bonds are an amortising loan structure which removes refinance risk for investors.

The revenue stream received by Axiom from the Aaa-rated (Moody's) NSW state carries low risk of volatility and is matched with timing of debt payments, thus adding a further degree of comfort to bondholders. Also, the bondholders

benefit from a longstanding expertise of Spotless in the provision of facility management services thus giving confidence in Axiom's ability to meet its KPIs and avoid any abatement of its service fees.

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